

Docket: GS 149

ABSTRACT

A method of forming a trench within a semiconductor substrate. The method comprises, for example, the following: (a) providing a semiconductor substrate; (b) providing a patterned first CVD-deposited masking material layer having a first aperture over the semiconductor substrate; (c) depositing a second CVD-deposited masking material layer over the first masking material layer; (d) etching the second masking material layer until a second aperture that is narrower than the first aperture is created in the second masking material within the first aperture; and (e) etching the semiconductor substrate through the second aperture such that a trench is formed in the semiconductor substrate. In preferred embodiments, the method of the present invention is used in the formation of trench MOSFET devices.